

Figure 1

Figure 2 A

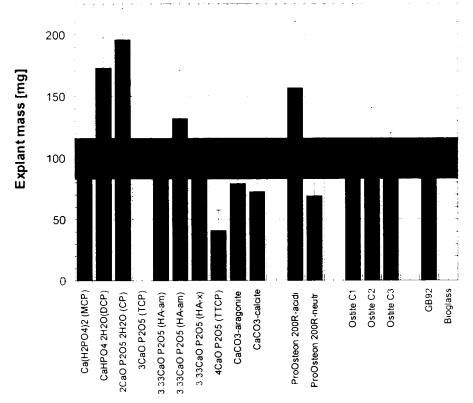


Figure 2 B

riguit 2 D									
		Explant Mass - no						normalized	
	CF	СРВ		СВ		СРВ		В	
	avg	±SD	avg	±SD	avg	±SD	avg	±SD	
$Ca(H_2PO_4)_2$ (MCP)	71.2	17.0	84.8	11.0	84.7	20.2	100.8	15.5	
CaHPO4.2H ₂ O(DCP)	157.2	22.4	91.6	10.6	173.0	24.7	100.8	15.5	
2CaO.P ₂ O ₅ .2H2O (CP)	191.8	24.6	98.6	13.7	196.1	25.2	100.8	15.5	
3CaO.P ₂ O ₅ (TCP)									
3.33CaO.P ₂ O ₅ (HA-am)	134.8	15.2	144.8	29.8	93.9	10.6	100.8	15 5	
3.33CaO.P ₂ O ₅ (HA-am)	136.2	39.9	103.8	13.4	132.3	38.8	100.8	15.5	
3.33CaO.P ₂ O ₅ (HA-x)	109.0	18.1	116.2	8.6	94.6	15.7	100.8	15.5	
4CaO.P ₂ O ₅ (TTCP)	46.8	18.8	115.0	5.9	41.0	16.5	100.8	15.5	
CaCO ₃ -aragonite	96.6	41.0	123.2	15.1	79.1	33.6	100.8	15.5	
CaCO₃-calcite	73.4	24.1	102.2	17.6	72.4	23.8	100.8	15.5	
ProOsteon 200R-acidi	87.5	30.2	56.3	16.3	156.7	54.1	100.8	15.5	
ProOsteon 200R-neutr	22.0	4.9	32.2	6.5	68.9	i 5.3	100.8	15.5	
								00	
Ostite C1	108.3	13.4	114.2	13.8	95.6	11.8	100.8	15.5	
Ostite C2	101.6	55.0	112.2	22.8	91.3	49.4	100.8	15.5	
Ostite C3	109.8	31.5	118.6	26.3	93.3	26.8	100.8	15.5	
GB9N	80.8	10.8	98.6	13.4	82.6	11.0	100.8	15.5	
Bioglass									

Figure 3 A

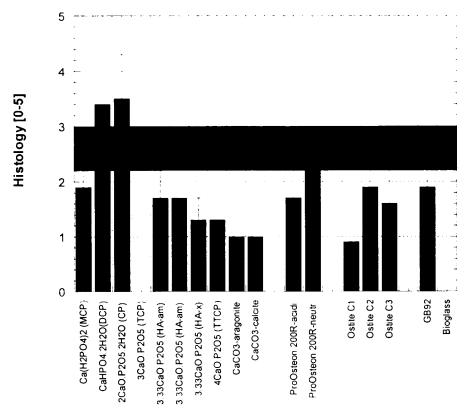


Figure 3 B

rigure 3 B									
		Histology Score			Histology Score - normalized				
	C	СРВ		СВ		CPB		В	
	avg	±SD	avg	±SD	avg	±SD	avg	±SD	
$Ca(H_2PO_4)_2$ (MCP)	1.7	0.6	2.3	0.6	1.9	0.7	2.6	0.4	
CaHPO4.2H ₂ O(DCP)	3.0	0.0	2.3	0.6	3.4	$\theta.\theta$	2.6	0.4	
2CaO.P ₂ O ₅ .2H2O (CP)	2.7	0.6	2.0	$\theta.\theta$	3.5	0.8	2.6	0.4	
3CaO.P ₂ O ₅ (TCP)									
3.33CaO.P ₂ O ₅ (HA-am)	1.3	0.6	2.0	0.0	1.7	0.8	2.6	0.4	
3.33CaO.P ₂ O ₅ (HA-am)	2.0	$\theta.\theta$	3.0	$\theta.\theta$	1.7	$\theta.\theta$	2.6	0.4	
3.33CaO.P ₂ O ₅ (HA-x)	1.2	0.4	2.4	0.5	1.3	0.4	2.6	0.4	
4CaO.P ₂ O ₅ (TTCP)	10	$\theta.\theta$	2 0	0.0	1.3	0.0	2.6	0.4	
CaCO ₃ -aragonite	10	θ . θ	2 7	0.6	1.0	$\theta \theta$	2.6	0.4	
CaCO3-calcite	10	$\theta.\theta$	2 7	0.6	1.0	00	2.6	0.4	
ProOsteon 200R-acidi	2.8	1.0	4 4	0.5	1.7	06	2.6	0.4	
ProOsteon 200R-neutr	2.0	∂ . \hat{O}	2.4	0.5	2.2	0.0	2.6	0.4	
								00	
Ostite C1	1 0	θ . θ	3.0	$\theta.\theta$	0.9	00	2.6	0.4	
Ostite C2	1.7	0.6	2.3	0.6	1.9	0.7	2.6	0.4	
Ostite C3	1.7	1.2	2.7	0.6	1.6	12	2.6	0.4	
GB9N	2 0	1.0	2.7	0.6	1.9	1.0	2.6	0.4	
Bioglass									

Figure 4 A

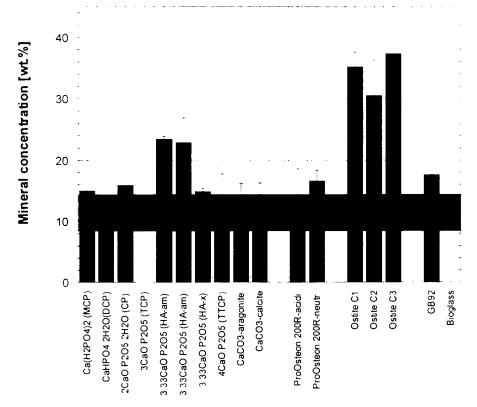


Figure 4 B

J	Min	eral Co	ncentra	tion	Miner	al conc	- norm	alized
	CI	ъВ	CB		СРВ		C	В
	avg	±SD	avg	±SD	avg	SD	avg	±SD
$Ca(H_2PO_4)_2$ (MCP)	12.3	4.1	8.8	1.9	15.0	5.0	10.7	1.4
CaHPO4.2H ₂ O(DCP)	12.1	0.5	11.1	0.7	11.7	0.5	10.7	1.4
2CaO.P ₂ O ₅ .2H2O (CP)	16.4	0.0	11.1	0.5	15.9	0.0	10.7	1.4
3CaO.P ₂ O ₅ (TCP)	1							
3.33CaO.P ₂ O ₅ (HA-am)	18.2	0.3	8.3	1.8	23.5	0.4	10.7	14
3.33CaO.P ₂ O ₅ (HA-am)	18.1	3.2	8.5	1.4	22 9	4 ()	10.7	1.4
3.33CaO.P ₂ O ₅ (HA-x)	18.5	0.6	13.3	1.4	14.9	0.5	10.7	1.4
4CaO.P ₂ O ₅ (TTCP)	178	5.0	13.7	0.9	13.9	3.9	10.7	1.4
CaCO ₃ -aragonite	14.6	23	11.2	1.6	14.0	2.2	10.7	1.4
CaCO ₃ -calcite	12.2	3.0	10 0	1.6	13.1	3.2	10.7	1.4
ProOsteon 200R-acidi	19.3	7.2	15.3	4.2	13.5	5.1	10.7	1.4
ProOsteon 200R-neutr	25 4	2.8	16.4	3.2	16.6	18	10.7	1.4
Ostite C1	26 6	1.8	8.1	0.7	35.2	2.4	10.7	1.4
Ostite C2	23 6	4.5	8.3	0.5	30.5	5.8	10.7	1.4
Ostite C3	25 7	5.7	7.4	0.5	37.3	8.3	10.7	1.4
GB9N	15 6	0.1	9.5	0.8	17.6	0.1	10.7	1.4
Bioglass								

Figure 5 A

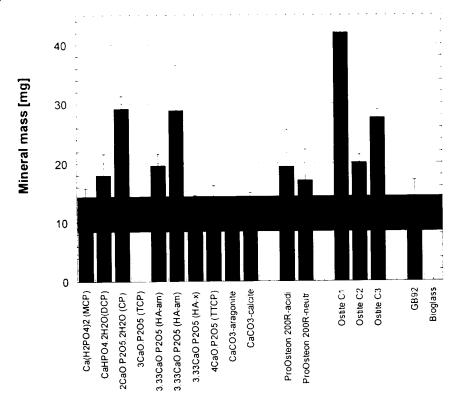


Figure 5 B

· ·		Mineral Mass Mineral Mass						s - normalized		
	CF	СРВ		СВ		CPB		В		
	avg	±SD _	avg	±SD	avg	±SD	avg	±SD		
Ca(H ₂ PO ₄) ₂ (MCP)	9.9	3.0	8.5	0.7	12.1	3.7	10.4	1.8		
CaHPO4.2H ₂ O(DCP)	18.2	3.6	10.5	2.2	18.0	3.6	10.4	1.8		
2CaO.P ₂ O ₅ .2H2O (CP)	33.3	2.4	11.8	0.8	29.2	2.1	10.4	1.8		
3CaO.P ₂ O ₅ (TCP)										
3.33CaO.P ₂ O ₅ (HA-am)	26.8	2.8	14.2	5.1	19.6	2.0	10.4	1.8		
3.33CaO.P ₂ O ₅ (HA-am)	26.8	7.0	9.6	1.9	28.9	7. 6	10.4	1.8		
3.33CaO.P ₂ O ₅ (HA-x)	16.7	6.4	16.4	0.3	10.5	4.0	10.4	1.8		
4CaO.P ₂ O ₅ (TTCP)	14.3	7.8	14.1	1.6	10.5	5.7	10.4	1.8		
CaCO ₃ -aragonite	13.2	4.3	14.5	2.7	9.4	3.1	10.4	1.8		
CaCO ₃ -calcite	8.2	4.2	8.6	1.8	9.9	5.1	10.4	1.8		
ProOsteon 200R-acidi	10.3	3 3	5.5	1.6	19.4	6.2	10.4	1.8		
ProOsteon 200R-neutr	6.6	2.0	4.0	1.8	17.1	5.2	10.4	1.8		
Ostite C1	34.5	5.7	8.5	1.3	42.0	6.9	10.4	1.8		
Ostite C2	20.8	1.3	10.7	0.1	20.1	1.3	10.4	1.8		
Ostite C3	25.8	1.3	9.7	1.6	27.6	1.4	10.4	1.8		
GB9N	11.8	2.7	8.8	0.4	13.9	3.2	10.4	1.8		
Bioglass										

Figure 6 A

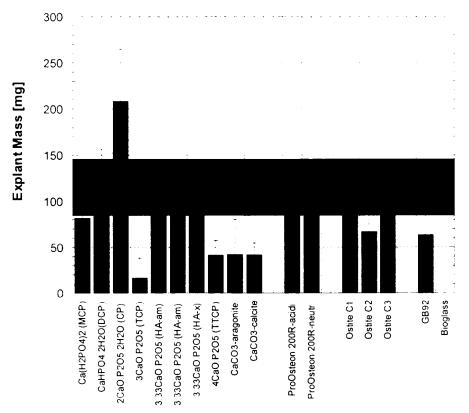


Figure 6 B

	Explant Mass				Explant Mass - normalized					
	CF	CPB		CDB		СРВ		ЭB		
	avg	±SD	avg	±SD	avg	±SD	avg	±SD		
$Ca(H_2PO_4)_2$ (MCP)	107.5	22.5	154.7	243	81.6	17.1	117.5	28.9		
CaHPO4.2H ₂ O(DCP)	78.9	21.6	75.5	169	122.7	33.6	117.5	28.9		
2CaO.P ₂ O ₅ .2H2O (CP)	98.9	27.0	55.8	36 I	208.2	56.8	117.5	28.9		
3CaO.P ₂ O ₅ (TCP)	11.7	15.3	83.2	20 7	16.5	21.6	117.5	28.9		
3.33CaO.P ₂ O ₅ (HA-am)	107.3	29.4	137.4	153	91.7	25.1	117.5	28.9		
3.33CaO.P ₂ O ₅ (HA-am)	124.6	25.6	130.2	294	112.4	23.7	117.5	28.9		
3.33CaO.P ₂ O ₅ (HA-x)	111.1	16.5	110.7	25 6	117.9	17.5	117.5	28.9		
4CaO.P ₂ O ₅ (TTCP)	41.1	16.0	116.9	160	41.3	16.1	117.5	28.9		
CaCO ₃ -aragonite	50.1	45.1	139.3	45 1	42.2	38.0	117.5	28.9		
CaCO ₃ -calcite	68.0	21.0	191.0	21.0	41.8	12.9	117.5	28.9		
ProOsteon 200R-acidi	74.7	13.6	80 4	29.1	109.1	21.4	117.5	28.9		
ProOsteon 200R-neutr	29.2	60	35.5	12.7	96.6	24.1	117.5	28.9		
								0.0		
Ostite C1	123.0	46.3	167.3	28.5	86.3	4.2	117.5	28.9		
Ostite C2	82.9	21.2	146.3	28.6	66.6	37.2	117.5	28.9		
Ostite C3	127.0	26.6	157.5	31.2	94.7	15.8	117.5	28.9		
GB9N	52.8	20.5	97.5	22.6	63.6	24.	117.5	28.9		
Bioglass										

Figure 7 A

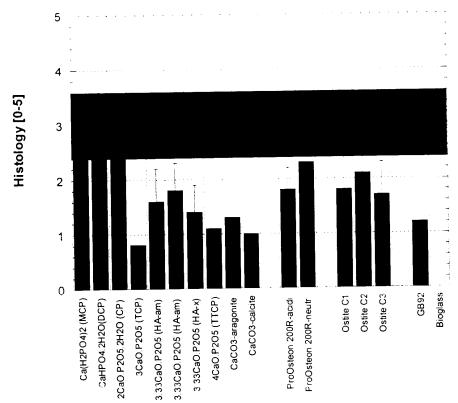


Figure 7 B

Figure / B								
		Histolog	y Score	•	Histolo	gy Scor	e - norr	nalized
	CI	СРВ		CDB		СРВ		OΒ
	avg	±SD	avg	±SD	avg	±SD	avg	±SD_
$Ca(H_2PO_4)_2$ (MCP)	3.0	0.0	3.7	0.5	2.4	0.0	3.0	0.6
CaHPO4.2H ₂ O(DCP)	4.0	0.6	3.8	0.6	3.1	0.5	3.0	0.6
2CaO.P ₂ O ₅ .2H2O (CP)	2.3	0.8	2.8	1.3	2.4	0.8	3.0	0.6
3CaO.P ₂ O ₅ (TCP)	1.0	0.0	3.7	0.5	0.8	0.0	3.0	0.6
3.33CaO.P ₂ O ₅ (HA-am)	1.3	$\theta.5$	2.4	0.7	1.6	0.6	3.0	0.6
3.33CaO.P ₂ O ₅ (HA-am)	1.1	0.3	1.8	06	1.8	0.5	3.0	0.6
3.33CaO.P ₂ O ₅ (HA-x)	1.3	0.5	2.7	0.5	1.4	0.5	3.0	0.6
4CaO.P ₂ O ₅ (TTCP)	1.0	0.0	2.7	0.5	1.1	$\theta.\theta$	3.0	0.6
CaCO ₃ -aragonite	1.0	$\theta.\theta$	2.3	0.6	1.3	0.0	3.0	0.6
CaCO ₃ -calcite	1.0	$\theta.\theta$	3.0	0.0	1.0	θ, θ	3.0	0.6
 ProOsteon 200R-acidi	2.5	0.6	4.0	0.0	1.8	0.4	3.0	0.6
ProOsteon 200R-neutr	2.0	$\theta.\theta$	2.6	0.9	2.3	0.0	3.0	0.6
1 100steon 20010 near								0.0
Ostite C1	1.9	$\theta.8$	3.1	0.4	1.8	0.8	3.0	0.6
Ostite C2	2.1	0.8	2.9	0.3	2.1	0.8	3.0	0.6
Ostite C3	1.8	0.6	3.2	0.4	1.7	0.6	3.0	0.6
GB9N	1.0	0.0	2.5	0.6	1.2	$\theta.\theta$	3.0	0.6
Bioglass								

Figure 8 A

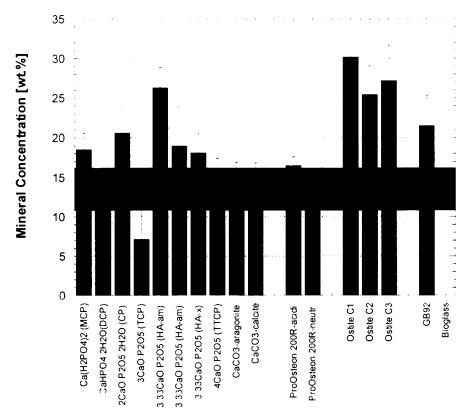


Figure 8 B

rigure o D	r							
	Min	eral Co	ncentra	tion	Miner	al conc	norm	alized
	CI	РВ	CDB		СРВ		CDB	
	avg	±SD	avg	±SD	avg	±SD	avg	±SD
$Ca(H_2PO_4)_2$ (MCP)	18.0	2.0	13.1	1.8	18.5	2.1	13.5	2.7
CaHPO4.2H ₂ O(DCP)	11.9	2.7	13.0	2.1	12.3	2.8	13.5	2.7
2CaO.P ₂ O ₅ .2H2O (CP)	17.3	2.5	11.3	1.0	20.6	3.0	13.5	2.7
3CaO.P ₂ O ₅ (TCP)	7.6	7.0	14.4	1.8	7.1	6.6	13.5	2. 7
3.33CaO.P ₂ O ₅ (HA-am)	24.6	24	12.6	2.1	26.3	2.6	13.5	2. 7
3.33CaO.P ₂ O ₅ (HA-am)	183	4.7	13.0	1.4	19.0	4.9	13.5	2. ~
3.33CaO.P ₂ O ₅ (HA-x)	189	2.5	14.1	2.6	18.1	24	13.5	2.7
4CaO.P ₂ O ₅ (TTCP)	13.1	4.4	13.6	2.1	13.0	4.4	13.5	2.7
CaCO3-aragonite	14.5	3.3	14.2	4.0	13.8	3.1	13.5	2.7
CaCO ₃ -calcite	12 3	3.0	12.3	3.0	13.5	3.3	13.5	2. "
ProOsteon 200R-acidic	19 1	1.3	15.6	2.6	16.5	1.1	13.5	2.7
ProOsteon 200R-neutral	22 6	2.8	23.2	15.2	13.1	1.6	13.5	2.7
Ostite C1	22 2	5.4	9.9	2.1	30.2	7.3	13.5	2. =
Ostite C2	22.6	3.3	12.0	2.8	25.4	3 .7	13.5	2.7
Ostite C3	23 2	3.8	11.5	2.8	27.2	4.5	13.5	2.7
GB9N	18.7	3.3	11.7	0.8	21.5	3.8	13.5	2.7
Bioglass								

Figure 9 A

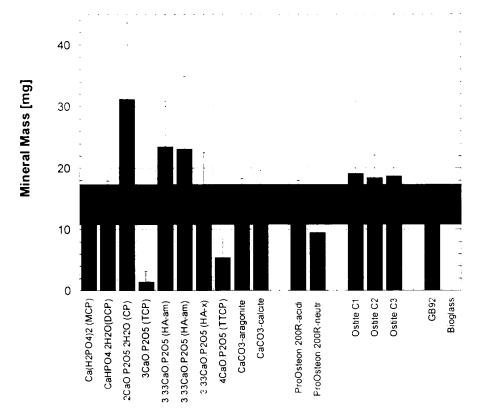


Figure 9 B

riguite / D								
		Minera	I Mass		Miner	al Mass	- norm	alized
	CI	СРВ		CDB		СРВ		ЭB
	avg	±SD	avg	±SD	avg	±SD	avg	±SD
$Ca(H_2PO_4)_2$ (MCP)	17.3	2.6	18.4	3.1	13.9	2.1	14.8	3.5
CaHPO4.2H ₂ O(DCP)	9.4	2.2	9.6	3.2	14.5	3.4	14.8	3.5
2CaO.P ₂ O ₅ .2H2O (CP)	13.3	5.3	6.3	1.1	31.2	12.4	14.8	<i>3.5</i>
3CaO.P ₂ O ₅ (TCP)	1.1	1.3	11.2	1.6	1.5	1.7	14.8	3.5
3.33CaO.P ₂ O ₅ (HA-am)	26.2	8.3	16.5	2.8	23.5	7.4	14.8	3.5
3.33CaO.P ₂ O ₅ (HA-am)	28.9	14.7	18.5	3.3	23.1	11.8	14.8	3.5
3.33CaO.P ₂ O ₅ (HA-x)	17.7	6.4	15.9	0.9	16.5	6.0	14.8	3.5
4CaO.P ₂ O ₅ (TTCP)	5.8	3.4	16.0	3.0	5.4	3.1	14.8	3.5
CaCO3-aragonite	12.1	7.2	15.6	3.5	115	6.8	14.8	3.5
CaCO ₃ -calcite	14.2	9.2	17.7	8.5	119	7, 7	14.8	3.5
ProOsteon 200R-acidi	14.7	4.3	15.6	7.0	13.9	1.1	14.8	3.5
ProOsteon 200R-neutr	5.9	1.6	9.2	4.4	9.5	2.6	14.8	3.5
Ostite C1	22.9	14.0	17.7	2.8	19.1	11.7	14.8	3.5
Ostite C2	17.3	3.5	13.9	3.4	184	3. 7	14.8	3.5
Ostite C3	26.1	7.6	20.6	2.8	187	5.5	14.8	3.5
GB9N	10.9	4.9	14.0	2.8	11.5	5.2	14.8	3.5
Bioglass								

Relative Histology Score [%]

